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AUTHOR	Soumelis, Constantin
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ABSTRACT

The report examines trends and issues concerned with the financing of higher education in Greece from 1974 to 1988. Greek higher education, which is almost all public, has expanded at an average annual rate of 3% during the period with the non-university technical component growing at an annual rate of 17.8%. Though the expansion was facilitated and sustained by an increase in financial resources, the increased resources fell short of the expanded enrollments resulting in decreased expenditures per student. The existing system of financing depends almost entirely on the general public budget since college admission is free under the Constitution which also banns the operation of private university-type institutions. This existing system of financing forces institutions into short term management planning, reduces their managerial autonomy, and has led to allowing fewer new entrants in 1986. It is not expected that the present system of financing will soon be changed but it is thought that possibly private, university-type institutions will be permitted to function in response to pressure from the European Economic Community and in order to reduce the number of Greek students studying abroad. The report details data leading to these conclusions in five chapters and a statistical annex. Nineteen notes and references are included. (DB)

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CHANGING PATTERNS OF FINANCE IN HIGHER EDUCATION

Country Study: Greece

This report is one of a series of country studies prepared in the framework of the OECD Education Committee activity on Changing Patterns of Finance in Higher Education. These studies have provided the background information for the preparation of a general report on this topic that will be published by the OECD.

The country study on Greece has been prepared by Constantin Soumelis, of the OECD, Education and Training Division, in consultation with the Greek educational authorities.

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15265

TABLE OF CONTENTS

		Pages
SUMMARY AND CONCLUSIONS		iii
Chapter One	NATURE AND EXTENT OF THE DEBATE ABOUT ARRANGEMENTS FOR THE FINANCING OF HIGHER EDUCATION	1
	A. Recent Trends in the Development of Higher Education: 1974-1988	1
	B. Current Policy Debate	6
Chapter Two	THE SYSTEM OF FINANCING HIGHER EDUCATION	9
	A. Main Features	9
	B. Changes and Implications	12
Chapter Three	STUDENT SUPPORT AND STUDENT SUPPORT SCHEMES	15
	A. Recent Trends in Student Aid	15
	B. Main Features of Student Support Schemes	15
Chapter Four	THE EFFECTS OF OPERATING FINANCING MECHANISMS ON THE ORGANISATIONAL BEHAVIOUR OF THE IHE AND THE PROVISION OF HIGHER EDUCATION	21
Chapter Five	EVALUATION AND FUTURE DEVELOPMENT IN THE FINANCING OF HIGHER EDUCATION	26
NOTES		28
STATISTICAL ANNEX		31

SUMMARY AND CONCLUSIONS

Higher education in Greece, which is practically all public, expanded very rapidly during the last 15 years. The university sector, which was already well developed in 1974, grew at an average annual rate of 3 per cent throughout the 1974-1988 period: the non-university sector, particularly its technical component, which was relatively less developed, experienced remarkable average annual growth rates of 13.9 and 17.8, respectively. The non-university, general education sector grew relatively much slower than its technical counterpart up to 1986 when teacher training colleges, which constituted the greater part of it, were upgraded to university status. This will lead to the virtual disappearance of the sector after 1988.

Since admission to all higher education institutions is controlled by a *numerus clausus* system, the expansion during the 1974-1988 period indicates the responsiveness of the Greek Government to an ever increasing social demand. The expansion was facilitated and sustained by an important increase in financial resources which was much faster than the rise in GDP and total public educational expenditure but as fast as total public expenditure. Nevertheless, the resources fell short in relation to the growth in enrolments. This was particularly felt in the university sector. As a result, expenditure per student declined.

The existing system of financing depends almost entirely on the general public budget. Before 1965 economically well-off students were paying fees but this source of income was abolished in 1965. This was the only significant change to occur in the system during the last forty years or so. The 1975 Constitution provided free admission to all levels of education and banned the operation of private university-type institutions; the functioning of non-university-type private institution was permitted.

The almost exclusive reliance of higher education institutions on the general public budget has hindered them from complementing their inadequate revenue from non-public sources. The educational authorities, on the other hand, incapable of securing additional funds, were obliged, in 1986, to stop the growth of higher education by reducing the number of new entrants.

The way the existing system of financing operates at present forces institution to keep to a year to year time-scale of management, thereby hindering the implementation of medium and longer term development plans. Moreover, the strict financial control exercised by the public auditing services reduces their managerial autonomy to almost zero rendering them all the more inefficient.

In addition to free tuition, all higher education students receive their basic text books and medical care. Students from low- income families are entitled to: (a) a special grant for meals and accommodation; (b) interest-free loans and scholarships according to their academic progress and the quality of their results.

The present system of financing is not likely to be changed, particularly in the near future, in view of the constitutional reforms that would be entailed. In the longer term it may be envisaged that private, university- type institutions will be permitted to function in order to respond to the expected pressure from the European Economic Community and to reduce the number of Greek students studying abroad. The institutions which own property could be given the necessary administrative and legislative means, in the spirit of Law 1268, to manage and develop it more efficiently with a view to making it an important source of income. Moreover, with a view to alleviating the burden on the public budget and facilitating the management of the overall system it is to be expected that the number of new entrants to higher education, particularly to the university sector, will be further reduced and, in turn, stabilised at a level corresponding closely to the real intake capacity of the institutions. The non-university technical institutions will continue to expand although at a much slower rate than in the past.

Chapter One

NATURE AND EXTENT OF THE DEBATE ABOUT ARRANGEMENTS FOR THE FINANCING OF HIGHER EDUCATION

A. Recent Trends in the Development of Higher Education: 1974 - 1988

1. Enrolment Growth

Public Higher Education in Greece, which accounts for 97 per cent of the total of all higher education and 100 per cent of university education, experienced a fast and significant growth throughout the 1974-1988 period. The number of students in total public higher education grew at a 5.3 per cent average annual rate (See Annex, Table 1). The corresponding growth rates of university and non-university student populations were 3.0 and 13.9 per cent, respectively. Growth rates differ when the whole period is divided into two sub-periods namely, 1974-81 and 1981-88. As Table 1 shows, during the 1974-81 period the growth of total higher education was slower (3.9 per cent) than in the 1981-88 period (6.7 per cent) despite the decline which took place during the last two years of the latter period. A similar trend was experienced by the university sector, which grew 1.3 per cent annually in 1974-81 as against an annual growth of 4.8 per cent in 1981-88 despite a 2 per cent decline after 1985-86. The growth rate for the 1981-86 period was 7.1 per cent. The growth trend, however, was different in the non-university sector; the trend was faster during the first half (16.4 per cent) and slower (11.3 per cent) during the second half. Figures in Table 1 also reveal that the fast growth of the non-university sector was mainly due to the important expansion of the non-university, technical sector. The non-university general education sector grew at a 7.6 per cent rate during the 1974-81 period but declined thereafter. This was the result of the upgrading of teacher colleges (which constituted the bulk of non-university general higher education) to university status. This change is expected to increase the number of university students.

The rapid growth of higher education is the result of several important educational reforms, which took place during the 1974-88 period, and which had very important quantitative and qualitative consequences for the entire system. The first was the expansion of compulsory education from six to nine years, that is, the primary cycle and the first cycle of secondary education (the Gymnasium). The second was the abolition of entrance examinations from the Gymnasium to the Lyceum (second cycle of secondary education). The third was the contribution of the class marks of the three years of the Lyceum by 25 per cent

to the overall results of the entrance examinations to the institutions of higher education. The congruent effect of these three administrative measures stimulated the latent social demand for higher education. This is shown in the rapid increase in the number of Lyceum graduates sitting the entrance examinations to higher education. According to Table 2 the number of candidates almost doubled during the 1974-88 period to reach 156 290 in 1986. The total number of successful students followed the same trend as for the number of entrants to universities. However, the number of successful entrants as a per centage of the number of candidates shows a declining trend. The overall growth trend was much faster during the second sub-period (1981-88) than it was during the 1974-81 period. This development was the result of a policy deliberately taken by the newly established government, in early 1981, to increase gradually the number of entrants by increasing the number of places in the institutions but retaining, at the same time, the numerus clausus system as a safety and control valve. The decision had two immediate effects: on the one hand, it created tremendous material pressure upon the institutions and, on the other, it further boosted social demand. It had to be modified in 1986-87 and its results are reflected in the recent rates of growth.

Absorption of the increased demand was made through the expansion of existing institutions (IHE) and the creation of new ones. During the 1974-88 period the following new universities have been created: the technical university of Crete (at Chania) in 1977, which started receiving students in 1984; the Universities of Aigeon and of Ionion in 1984, which have received their first students in 1985; the University of Thessalia in 1984, which has not, as yet, received any students. In addition, the University of Crete (at Rethymnon), which was established in 1973 started receiving students only in 1977. However, these newly established universities have still a very small number of students. In fact, in terms of intake capacity two universities, namely, those of Athens and Salonica, make up for more than 60 per cent of the total number of university students. The remaining 40 per cent is divided among the other 15 Universities. Four of them, namely, the Technical University of Athens (7 114), the University of Patras (7 786), the Athens School of Economics and Business (5 215) and the University of Ioannina (4 909), had 5 000 or more students. The remaining 10 had less than 5 000 students. This, obviously, indicates that the efficiency of the universities suffers either from diseconomies of scale, due to their small size, or from diseconomies of agglomeration, due to their very big size, which probably make them lose the expected advantages from economies of scale. This is further aggravated by a lack of effective management due mainly to the existing administrative arrangements, which are discussed below (1).

The supply of places in the non-university sector also had to grow fast in order to respond to the increased social demand, despite the fact that this sector was always seen as a second or even a third best solution by candidates and their families (2). As mentioned above, this part of the demand was mainly directed

towards the non-university technical sector. In an attempt to make this sector more attractive the Centres for Higher Technical and Vocational Education (KATEE) were upgraded in 1983 to become Technological Educational Institutions (TEI). It is not as yet proven whether this upgrading effectively improved its image since its rate of growth in the 1981-88 period was inferior to that of the 1974-81 period. Nevertheless, in view of the numerus clausus system controlling university entrance, some of the less ambitious candidates who do not have the means or the will to travel abroad, will continue to find refuge in the TEIs thereby contributing to their further growth. The regional distribution of the TEIs and the applied nature of their curricula do make an important and direct contribution to regional development. It is expected, therefore, that the number of TEIs (eleven at present) will increase somewhat in the future in order to meet the growing demand for higher education and, at the same time, serve the development needs of more regions. However, whether this expansion will be brought about by reducing the university sector, as in the past, is difficult to foresee since, under the existing numerus clausus arrangements, the decision becomes a very political one, depending on whether the Government will be willing to give to the IHEs the necessary additional resources or take the necessary measures to facilitate the flow of non-public sources into their budgets or to do both.

2. The Financing of Growth

The growth of the public higher education sector was facilitated and sustained by an important increase in public resources to cover both investment and recurrent expenditures. The evolution of total expenditures since 1974 is shown in Table 3 in current and in Table 4 in constant prices. They grew, throughout the entire period, at a 6.2 per cent annual average rate (Table 5) but the growth rate was slower (5.0 per cent) during the first half of the 1974-88 period and faster (7.5 per cent) during the second half (1981-88), proportionally similar to the growth of enrolments. Expenditure on university education followed the same growth pattern but the respective growth rates were slower, whilst those of the non-university sector were faster but the growth pattern was reversed as was also the case with enrolments.

When expenditure growth rates are compared with corresponding growth rates of: (i) total public educational expenditure; (ii) total public expenditure; (iii) GDP, the following observations can be made:

a) total expenditure on total higher education grew faster throughout the 1974-88 period than total educational expenditure and GDP (the corresponding elasticities are shown in Table 6);

b) total expenditure on total higher education grew at the same rate (elasticity equally 1.000) with total public expenditure during the entire period but at a slower rate in 1974-81 and a faster one in 1981-88;

c) total expenditure on university education grew slower than total expenditure on total higher education throughout the 1974-88 period and its sub-periods. With respect to total educational expenditure and GDP university expenditure growth pattern was similar to that of total expenditure on total higher education. With respect to total public expenditure, however, university expenditure grew at a slower rate throughout the 1974-88 period;

d) total expenditure on non-university higher education grew much faster than all other types of expenditure.

Table 6 permits a comparison of the evolution of the other types of public expenditure. For example, it shows that total public educational expenditure grew faster than GDP but slower than total public expenditure except in 1981-88. Total public expenditure, on the other hand, grew much faster than GDP throughout the 1974-88 period and its two sub-periods. As a result of the differences in the growth rates the part of the public budget going to education was decreased from 11.1 per cent in 1974 to 8.5 per cent in 1988 (Table 7). On the contrary, the part of GDP increased, though in a fluctuating way, from 2.89 per cent in 1974 to 3.37 per cent in 1988 (Table 8) after having registered a minimum of 2.72 per cent in 1980 and a maximum of 3.41 in 1985.

The situation as to expenditure on total higher education and its two main sub-sectors -- university and non-university -- looks less straight forward. The part of the public budget going to total higher education increased from 2.1 per cent in 1974 to 2.69 per cent in 1977 and 1978 and it decreased thereafter to 1.52 per cent in 1981. From 1981 up to 1986 it increased again to 2.26 per cent and it then started decreasing to reach an estimated 2.08 per cent in 1988. The proportion of GDP to total higher education (Table 8) fluctuated in a very similar way in 1974-81 but it increased steadily ever since to reach its maximum (an estimated .83 per cent) in 1988.

The part of public funds allocated to universities and non-university institutions followed a very similar trend to that of total higher education reaching its maximum value in 1978 and its minimum in 1981. The part of the GDP, on the other hand, increased from 1974 (.45 per cent) up to 1978 (.59 per cent) and decreased thereafter up to 1981 when it reached its absolute minimum (.44 per cent). Ever since, it has grown constantly (with an interruption in 1987); in 1988 it has been estimated at .63 per cent.

The foregoing discussion shows that public expenditure on higher education increased substantially during the 1974-88 period. Nevertheless, the part of the public budget which was spent on total education and by level was decreased, although the corresponding part of GDP was increased. In order to appreciate whether this public effort was sufficient to support, and to what extent, the important growth in enrolments it will be necessary to look at the evolution of expenditure per student. This is shown in Table 9 for total higher education and its allocations in term of both total and current expenditure and in constant 1980 prices. According to this table, public expenditure per student in total higher education registered a minimum value of 75 400 Drs. in 1974 to a maximum of 94 900 Drs. in 1978. The average values in 1974-81 were higher than the corresponding values in 1982-88 and 1974-88. On the contrary, in terms of current expenditures average values achieved in 1982-88 were higher than those in 1974-81 and 1974-88. This clearly shows that capital expenditure per student was more important during the first half of the 1974-88 period. It is interesting to note, however, that public current expenditures per student reached their maximum value in 1984 and declined up to 1987. If the estimated value of 67 000 Drs. for 1988 materialises it will mean that the declining trend is being reversed.

Modification of the value of the expenditure per student indicator could be achieved by working either on expenditure or on the number of students or on both at the same time. The end result will depend on the rate and nature of change of both the nominator and the denominator. For example, in 1985 and 1986 both the number of students and public expenditure increased but because of varying rates public expenditure per student declined. In 1987 enrolments and public expenditure both declined as did the corresponding expenditure per student. The annual growth rates of real expenditure per student are shown in Table 10. It is interesting to note that although the average annual growth rates in 1974-88 and its two sub-periods are positive, expenditure per student in total higher education declined quite substantially in the last three years of each sub-period (3).

The evolution of public expenditure per student in the two higher education sub-sectors (university and non-university) differs from that of total higher education and between the two. In the university sector expenditure per student, whether in terms of total or current expenditures has shown an increasing, though fluctuating, trend (4) throughout the 1974-88 period. For both total and current expenditure, the minimum value of expenditure per student was registered in 1974 and the maximum in 1984. Total expenditure per student progressed faster in the first half of the 1974-88 period whilst current expenditure per student registered a faster growth in the second half (Table 10). This indicates a faster growth in capital investment in 1974-81. On the contrary, total expenditure per student in the non-university sector declined throughout the 1974-88 period (Table 10); it registered its maximum value in 1975 and minimum

in 1986 (Table 9). A possible explanation of this development might be the massive investment which took place in the early 1970s for the creation of the old type TEI (KATE) and the small number of students in the first years. On the contrary, the evolution of current expenditure per student was more stable; the differences among average prices for the period 1974-88 and its two sub-periods are small.

The comparison of average total expenditure per student in the non-university sector with that of the university sector shows that the former was 20 per cent less expensive in 1974-88, 43 per cent less expensive in 1982-88 and as expensive in 1974-81. On the basis of current expenditure per student the non-university sector was 42 per cent less expensive in 1974-88, 48 per cent in 1982-88 and 36 per cent in 1974-81. The situation in technical non-university education is almost similar to that of total non-university education. In view of the very fast growth in enrolments and the relatively slower growth in expenditure (Table 1), total and current expenditure per student declined steadily (Table 10). On the other hand, in the non-university general education sector current expenditure per student grew substantially from 1974 up to 1978 and has declined ever since. The growth rate of 190.9 per cent in 1988 is due to the upgrading of teacher training colleges since the gradual decline in enrolments was not followed, for technical reasons, by a proportional redeployment of the associated resources. This very high rate has substantially biased the mean values. For example, though the average value in 1981-88 is 21.1 per cent the corresponding value in 1981-87 is -7.3 per cent.

The foregoing discussion suggests that although governments made a considerable effort to support financially and facilitate the growth of higher education this was not enough to sustain expenditure per student and, if possible, increase it. In the absence of studies which could indicate an acceptable amount of expenditure per student for each of the branches of higher education the expectation of those concerned is for ever more expenditure per student. On the other hand, the governments' behaviour shows clearly that during the period 1974-88 higher education and education in general were not necessarily one of their top social priorities. The decline in the portion of the public budget spent on education (although the portion of GDP increased) proves it despite the very important growth in enrolments. A second but less direct proof is the recent discontent which prevails among students, university authorities and parents as to the future development of higher education.

B. Current Policy Debate

The current public debate is being focused more on the amount of public funds allocated to both the IHE and students, through various types of support schemes, rather than on the existing arrangements for financing. The government and several

of the actors involved alike take the actual pattern of financing for granted. This is so for the simple reason that the system, which is described below, is founded on two principles, each having received constitutional reinforcement in the 1975 Constitution:

-- all Greeks have the right to free education at all levels;

-- the provision of higher education is the State's responsibility and university- type education is provided exclusively by institutions in public law; therefore, the functioning of private university- type institutions (but not of non-university type institutions) is prohibited.

It follows, therefore, that any change in the system of financing which is contrary to the above two principles is impossible unless the Constitution be amended accordingly.

Very recently, however, under the pressure of insufficient resources which arises mainly because of the inability of the government to meet the increasing and pressing needs of the IHE there are indications that the validity of these two principles is being questioned. The argument is the following: if the public budget cannot finance adequately IHE to perform successfully their roles new sources of revenue should be found. Three different options are debated: (i) students should contribute according to their family income and private university-type institution should be left free to operate; (ii) the state should try to find the necessary funds either through a reallocation of existing resources or increased taxation or both; (iii) the IHE which own property should exploit it more efficiently in order to increase their revenues. The first two propositions have been presented by individuals and non-governmental organisations. The third was defended by the government through the Minister of Education. At the same time, of course, the government, as discussed above, started controlling, with the help of the numerus clausus system, the number of new entrants in an attempt first to stabilise and eventually to reduce the expansion of higher education.

Another aspect of the existing system of financing which regularly appears on the agenda in the discussions between the Government and the IHE is the excessively tight financial control exercised by the Government, the provider of funds. This is exercised with the help of the central government's "public accounting system". According to the IHE, it reduces their "institutional autonomy", guaranteed by the Constitution, to almost zero. The recent Law 1268/82 "on the structure and functioning of the university-type institutions" states also very clearly, that these institutions are *completely self governed*. In addition, there are indications that a sort of mistrust exists between the public financial authorities and the management of

the IHE. In fact, there is a common practice whereby the government approves only part of the amount the institutions demand in their initial budget proposals on the assumption that they deliberately exaggerate their needs. Under such conditions and in the absence of well defined criteria it is very difficult to establish a clear idea as to what the needs of the IHE really are. Several attempts to formulate criteria on the basis of which the government could allocate resources have failed. The matter was discussed for the first time by the Council of Higher Education in January 1987 on the basis of a report prepared by the Ministry of Education (5). The report proposed three criteria for the allocation of current expenditure, namely: the number of students, the number of teaching staff and the type of faculties. The discussion did not result, however, in any concrete decision and the issue seems to have become the object of study of an inquiry by a special committee.

The foregoing discussion shows clearly that the existing pressure on the IHE, and particularly on the universities, which is due mainly to insufficient public resources, will inevitably bring into the public debate the viability of the current system of financing higher education, unless the government makes an heroic effort to meet all demands through the public budget. That assumption, under actual economic and social conditions, is hardly likely to be justified.

Chapter Two

THE SYSTEM OF FINANCING HIGHER EDUCATION

A. Main Features

1. Sources and uses of educational finance

The current account budget

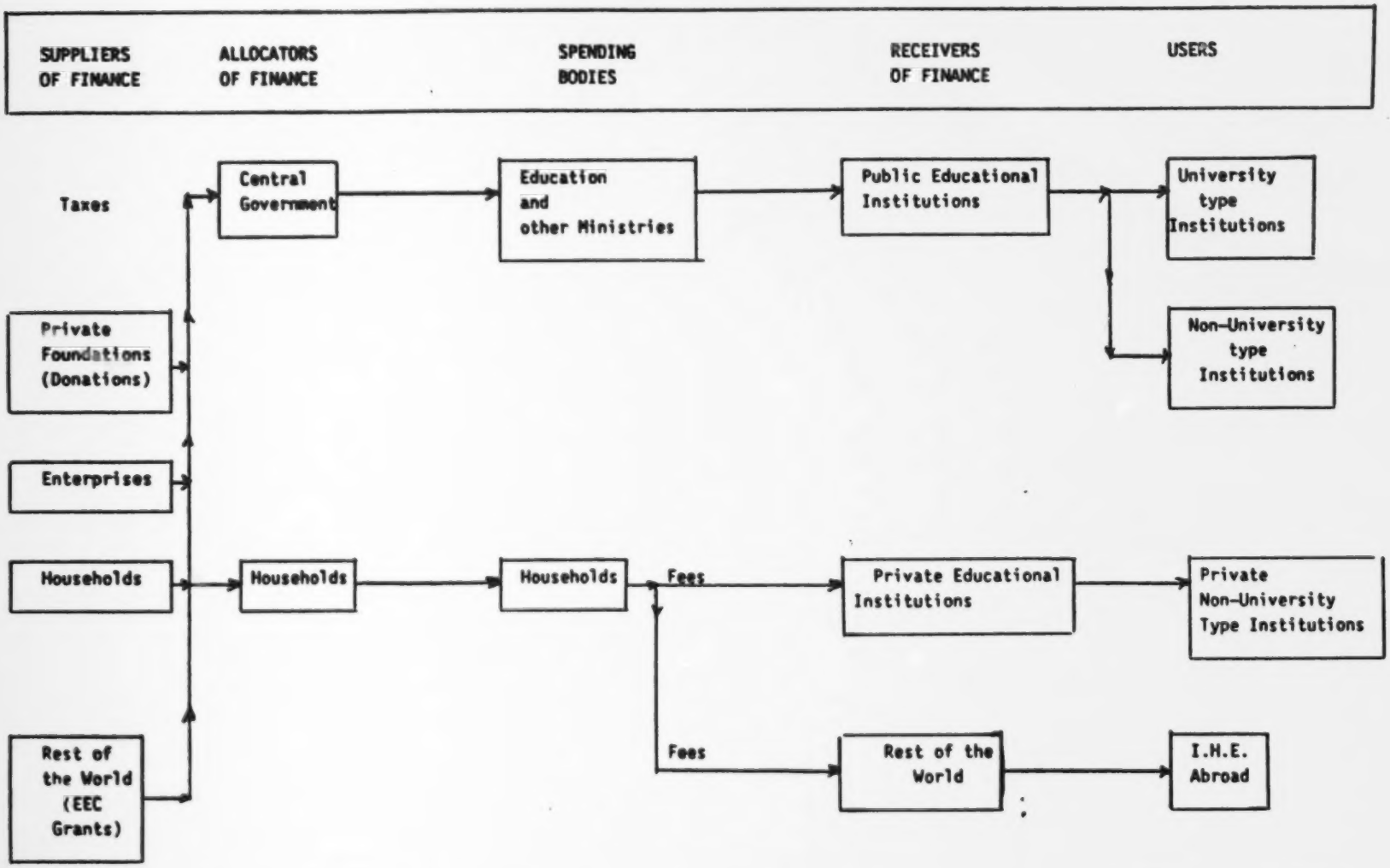
According to the Greek Constitution (Art. 16) higher education is provided free of charge by institutions in public law under the full responsibility and control of the State. Private university-type institutions are prohibited but private non-university-type institution are permitted (6).

The above principles, as already stated, determine to a great extent the "model" of the system of financing higher education. This model, in general lines, is shown in Fig. 1. It consists of three main parts: the public system, which accounts for more than 95 per cent of enrolments; the private system, which is limited to non-university-type institutions and accounts for the remaining 4-5 per cent of enrolments; the "rest of the world" system. The size and the growth of this third system were not discussed above since the present report is limited to Greek higher education. Nevertheless, in view of its size this sub-system is very important for both the economy and the labour market. The number of Greeks studying abroad accounts for approximately 35 to 40 per cent of those studying in Greece. Through a crude estimate ($5 000 per student per academic year and 45 000 students) the total cost of higher education studies abroad amounts to circa $225m. or 30 000m. Drs. a year that is, about half of the cost of total higher education in Greece in 1988. This is, by any reckoning, an extremely severe cost to the Greek economy. The fact that it is covered almost exclusively by households should be born in mind when considering the operation of private universities.

Figure 1 clearly shows that public IHE receive their funds directly from the central government through the Ministry of Education or other responsible Ministries. Earmarked grants from external sources as well as donations from private foundations to the IHE also flow through the general government budget. Private non-university institutions receive funds only from and through households in the form of fees.

The IHE receive their funds from the government on the basis of an itemised budget prepared by them and approved by the Ministry of Finance. In the preparation of their budgets the IHE follow a well defined procedure according to the rules governing

Fig. 1. SOURCES AND USES OF FINANCE HIGHER EDUCATION



the public accounting system (7). The draft budget of each IHE is sent to the Ministry of Finance via the Ministry of Education for approval. Since there are no established criteria for estimating the government's grant the competent services of the Ministries of Education and of Finance compare each budget item with that of the previous year and question its necessity and validity. Through such an evaluation procedure they usually arrive at much lower figures than those proposed by the IHE. Table A below presents the proposals made by the university-type institutions in 1984 and the approved grants. These grants as a per centage of the initially proposed budgets varied from 23 to 93.6 per cent with an average of 52.1 per cent. These important variations indicate, as mentioned earlier, the sort of mistrust which prevails between the IHE and the governmental services. The services seems to be convinced that the IHE deliberately exaggerate their expenditures. On the other hand, the management of each IHE argues that it proposes only what is deemed absolutely necessary for its proper functioning. Experience shows that very often the government has to provide complementary grants in the middle of a fiscal year to permit the IHE to function properly. In other cases, however, the IHE were not capable of spending the full amount of their appropriations, as for example in 1983 when the university-type institutions received only 95 per cent of their approved budgets. This is due to several procedural rigidities as for example: the way the IHE receive their funds (in irregular instalments); the ban on reallocating resources among the various budget items (such a reallocation necessitates ministerial approval and follows the same procedure as for approval of the budget) which very often obliges them to return to the Ministry of Finance unutilised credits (8). These rigidities, obviously, have a negative effect on both the year by year management of the IHE as well as on their medium-term development since they do not have a priori knowledge of the size of their budget for the next year. The fact that the academic year does not coincide with the fiscal year complicates further the preparation of the budget and its implementation for two main reasons: first, the uncertainty as to the number of new entrants to each school of the IHE since the number of new entrants is determined by the Government in the middle of the year; second, uncertainty as to the filling of vacant teaching posts for both existing and new departments.

The capital account budget

The resources for financing the capital budget of the IHE come also from the central government. The procedure for the preparation and approval of the capital account budget is very similar to that for the current account budget. In brief, each IHE prepares the necessary technical study within the framework of a "buildings programme" which has been approved by the Ministry of Education. This decision is registered in the "collective decision for technical studies" (SAM) and the technical service of each IHE itself or with the help of a private enterprise prepares these studies. The estimated

expenditures are sent to the Ministry of Education for evaluation and approval. The approved amount is included in the government's capital account budget and its spending is monitored by the Ministry of Education and the Ministry of National Economy (Direction of Public Investment), which has the overall responsibility for the execution of public investment. The total amount for the approved construction is spread over the envisaged time period and the annual capital budget is prepared on the basis of the foreseen progress of the work. Payment is made on the basis of receipts for completed work. If the budgeted amount for a particular IHE is bigger than the total sum of the deposited receipts the outstanding amount is either reallocated to cover the investment needs of other institutions or it is lost for the institution for the current fiscal year.

For the TEI this procedure is not as yet fully in operation. From the time of the creation of the first KATEE responsibility for the construction of buildings was vested with a special service in the Ministry of Education (Direction for the Implementation of Educational Plans: DIEFES). However, the TEI have gradually created their own technical services, similar to those of the university-type institutions, which has helped them increase their autonomy vis-à-vis the Ministry of Education.

2. **Budget control**

Another important feature of the financing mechanism is the element of control. The IHE being legal entities in public law are subjected to the financial control of the central government's auditing services. Each IHE at the end of the fiscal year submits a detailed budget implementation report to the auditing services of the Ministry of Education prepared in line with the itemised structure of the budget in order to facilitate control, which takes the form of inspecting whether the amounts spent under each item are within the limits set by the approved budget. A legal control is also undertaken by the central auditing commission.

It is taken for granted therefore, that the approved budget had taken care of the efficient allocation and use of public funds. In other words, the auditing services do not evaluate, at the same time, the existing methods of financial management with a view to proposing improvements in the current system. The direct result is, therefore, that no systemic change takes place.

B. Changes and Implications

The operational system for financing higher education described above has remained almost unchanged during, at least, the last forty years. The only significant change was introduced in the 1964/65 educational reform, which provided for free public education at all levels. This reform deprived the IHE of a source of income, notably the fees they had the right to charge

Table A

Financing the Greek Universities in 1984 (in thousands of drachmas)

Institutions	Proposals of Universities	Grants Approved by Government	Approved Grants %
University of Athens	1 500 000	737 200	49 1
University of Thessaloniki	1 518 270	908 600	59 8
University of Patras	312 500	180 000	57 6
University of Ioannina	300 000	150 000	50 6
University of Thrace	645 000	150 000	23 0
University of Crete	320 000	100 000	31 2
Nat'l. Technical University (Athens)	390 000	180 000	46 1
Agricultural College of Athens	110 000	50 000	45 4
Athens School of Economics and Business Science	100 000	55 000	55 0
Panteios School of Industrial Studies	110 000	67 000	60 9
Piraeus School of Industrial Studies	144 000	67 000	46 5
Thessaloniki School of Industrial Studies	80 000	35 000	43 7
School of Fine Arts (Athens)	70 000	35 000	50 0
Technical University of Crete	100 000	35 000	35 0
Aeginiteion (University) Hospital	203 000	190 000	93 6
Areteion (University) Hospital	464 000	380 000	81 9
	6 366 770	3 319 600	52 1

Source: Ministry of Education, Financial Services, Athens, 1984.

Quoted in: C.A Saitis, "A comparative study of some Aspects of the Administrative Systems of English and Greek Universities", Hull, 1986 (unpublished PH.D Thesis), University of Hull, 1986.

the economically "self-sufficient" students; the "needy" students were exempted. The basic argument for introducing this change was that the administrative cost of deciding who is economically self-sufficient or not and controlling the situation was absorbing a big part of IHE revenues from fees which, in reality, rendered this source of income worthless.

The direct result of this policy, which had, and continues to have, a great appeal to students and their families, was that it made the IHE entirely dependent on the central government's resources, thus reducing their financial autonomy to zero. This policy has continued to prevail ever since and received constitutional enforcement in 1975. At the same time, as mentioned earlier, the constitution prohibited the functioning of private institutions. No other significant change took place. The recent changes in the internal structure and functioning of the university-type institutions (Law 1268/82) did not actually influence the financing system. They affected only the internal decision-making process (9).

The observed growth in total enrolments as well as the changes in the structure of enrolments in favour of the non-university technical sector have not been influenced by changes in the financing system. In view of the fact that there exists a *numerus clausus* barrier to entry into both sectors of higher education, changes in the supply of places were the result of political decisions based on the manifest social demand pressure for places. Financing of this growth was made possible by increasing expenditure on total higher education and, at the same time, re-allocating resources away from the university sector to the non-university one. The structural changes that occurred are shown in Table B below.

Table B

	Non-University Technical Education enrolments as % of total enrolments in Higher Education	Total Expenditure on Non-University Technical Education as % of total Expenditure on Higher Education	Total Expenditure on Higher Education as % of total Educational Expenditure
1974	7.8	14.7	18.9
1980	21.4	15.1	21.2
1988	34.1	22.5	24.6

Chapter Three

STUDENT SUPPORT AND STUDENT SUPPORT SCHEMES

A. Recent Trends in Student Aid

In addition to free tuition, students receive aid in the form of meals, accommodation, books, scholarships, loans and medical care. They also benefit from reduced fares on all public transport. Parents can also deduct expenditure on their children's education from their annual income tax returns.

Table C below shows public expenditure on student support by the principal aid element and by higher education sub-sector, where possible, for the last four years. Expenditure on meals is by far the most important cost element, accounting for approximately 75 per cent of total student aid. Total student aid, on the other hand, as a per centage of current expenditure on total higher education, ranged from 11.2 in 1984 to 12.3 in 1987.

B. Main Features of Student Support Schemes

Aid to students is provided according to the Law 1268/82 - Article 29 under certain conditions, (except for books which are given free of charge to all students) prescribed in Presidential Decrees.

i) Meals

According to the Presidential Decrees 387/83 and 494/85, students are eligible for free meals (225 Drs. per day)(10) who fall in one of the categories shown in Table D defined mainly on the basis of the size and economic situation of the student's family.

ii) Loans

The provision of interest-free loans to students started from the academic year 1983/84 for university-type institutions and from the academic year 1985/86 for the Technological Educational Institutions (non-university technical higher education institutions). The conditions are prescribed in the Presidential Decree 360/83 and the Ministerial Decision/20.5.85, respectively.

The eligibility criteria are mainly determined by the economic situation of the student and his or her family and the academic progress achieved. Loans are given annually for as many

Table C

STUDENT AID: 1984-1987

Year	MEALS		LOANS		Scholar-ships	Books[1]	Total	Student Aid as % of Current Exp. on H.E.
	Univ.	TEI	Univ.	TEI				
1984	1385.6	580	73.0	1.0	500	200	2739.6	11.2
1985	2230.7	1040	112.7	2.8	539	300	4225.2	13.8
1986	2634.0	1385	84.0	35.0	600	350	5088.0	13.0
1987	2650.0	1400	110.0	30.0	900	350	5440.0	12.3

(1) Estimates.

Source: Public Budget.

Table D

FAMILY INCOME LIMITS ACCORDING TO FAMILY STATUS FOR STUDENTS FREE MEALS IN IHE

(in drs.)

Family status	The school is located away from the place the student's family live		The school is located in the place the student's family live	
	Limits in the Presidential Decree	Limits for 1987-88	Limits set in the President. Decree	Limits for 1987-88
F. with one child	650.000	865.150	550.000	732.050
F. with two children	750.000	998.250	650.000	865.150
F. with three child.	900.000	1197900	800.000	1.064.800
F. with four child.(1)	1.000.000	1.331.000	700.000	1.197.900

(1) For each additional child the family income is increased by 66.550 drs.

years as the minimum duration of the prescribed studies. The amount of the annual loan was set, and still is, at 54 000 drs. for all students except for students in the school of dentistry who receive 72 000 Drs.

Students who have received a loan are obliged to start repaying it two years after graduation or, if they are drafted, one year after they finish their military service (in monthly instalments equal to the number of annual loans received multiplied by 12). However, students, who have interrupted their studies are obliged to repay the total amount of loans received in six months from the time they interrupted their studies. If students who have received loans do not graduate within a period equal to one and a half times the minimum duration required they are obliged to repay the loan immediately. Students whose academic achievement upon graduation is graded "excellent" are exempted from the obligation to repay the loan. The administrative procedure for the provision and monitoring of loans is shared between the IHE and the auditing service of the Ministry of Education.

iii) Scholarships

A certain number of scholarships is provided annually by the State Scholarship Foundation (IKY) according to the following conditions:

(a) For First Year Students

- have Greek nationality;
- have been classified among the first (within the range set by the number of scholarships) in the Department they have entered;
- have a personal taxable income less than 600 000 Drs. If married with children this amount is increased by 100 000 Drs. for each dependent child;
- be registered as a first year student.

(b) For Intermediate Year Students

- have Greek nationality;
- have successfully terminated the previous year of studies receiving an average grade not less than 6.5 over 10 (very good);
- have no adequate personal income (the same as in (a.3) above);
- be registered for the new academic year.

In both cases students who have excelled but have a personal income higher than the minimum required receive only the title of a scholarship holder.

iv) Medical Care

According to the Presidential Decree 327/83 all undergraduate and graduate students, irrespective of nationality, are entitled to complete medical care free of charge for a period equal to one and a half times the minimum duration of their studies. The conditions are specified in the Presidential Decree. The associated expenditures are covered by the budget of the IHE to which the student belongs. If a student is entitled, directly or indirectly, to medical care from another insurance scheme he has the right to choose it; in this case the cost is born by the insurance scheme. If the student's personal insurance scheme covers only a part of what the IHE would have covered, the difference is paid by the IHE.

v) Student Accommodation

Accommodation is offered to students by the Student Homes, which function under the administrative responsibility of the National Youth Foundation and operate in almost all towns with university facilities. The National Youth Foundation receives public funds from the Ministry of Culture through the General Secretariat for the New Generation (11). The total annual budget of the National Youth Foundation during the last four years evolved as follows:

1984	1564 mil. drs
1985	2015 mil. drs
1986	2113 mil. drs
1987	2400 mil. drs

The eligibility criteria are similar to those for meals, that is, they are based on the income of a student's family, progress in studies, and the number of additional children in the family. However, the total number of students to receive accommodation is constrained by the number of available beds. For example in the city of Salonica with approximately 40 000 students, only two Student Homes operate with a total capacity of 1 500 beds.

The foregoing discussion indicates clearly that the most crucial criterion for a student to receive support, including loans, is family income. This seems to have created several problems due to the criteria used for estimating family revenue being based exclusively on income tax returns. The validity of this source of information has been challenged because of the important scale of tax evasion which exists on the part of almost the totality of the so called liberal professions. This

obviously penalises low income groups and particularly civil servants, whose salaries are a little above the minimum amount required and who cannot conceal any part of their revenues.

Chapter Four

THE EFFECTS OF OPERATING FINANCING MECHANISMS ON THE ORGANISATIONAL BEHAVIOUR OF THE IHE AND THE PROVISION OF HIGHER EDUCATION

In describing the financing system above reference has already been made to several problems that the IHE are confronted with, particularly as to their annual management and their future development. Some of these are due to the existing system of financing but other factors also contribute to this situation. Among them the following seem to be the most important:

a) the number of new entrants to each IHE is fixed by the Ministry of Education (12). The IHE express their views as to their intake capacity but this is not always taken seriously into consideration. On several occasions, particularly during recent years, the number of new entrants was greater than that indicated by the IHE. In addition, this decision is taken late every year (one or two months before the date of the entrance exams) and in the absence of any national educational development plan it is based mainly on ad hoc political considerations. A first attempt to rationalise the decision as to the number of new entrants by founding it on some objective criteria was made in 1987 by the Council of Higher Education. However, the basic principle which finally dominated the decision was stabilisation of the number of new entrants, assuming that the maximum number which was realised in 1985, after a period of continuous increase, meets the fundamental economic, social and educational goals of Greek society. In fact, however, the number of new entrants in 1987 was smaller than that in 1986 but not to the extent that the IHE had initially suggested.

b) The recruitment of teaching staff either for new or vacant posts is the responsibility of the Ministry of Education. This decreases the ability of the IHE to staff their departments adequately in relation to the number of students, to improve quality, and to undertake research.

c) A number of technical aspects, more particularly the transfer of students, from one Greek IHE to another and from an IHE abroad to a Greek IHE (according to specified criteria). This poses managerial problems since it is extremely difficult for the IHE to calculate in advance the additional number of students due to transfers. In some schools, as for example in

> the faculty of medicine of the University of Athens, the number of new students due to transfers (not necessarily in the first year) amounted to approximately 200 per cent. of the number of new entrants who have passed general examinations (13).

The influence of financing mechanisms on the organisational behaviour of the IHE should be seen also in connection with these factors.

The most important element of the financing mechanism is the almost exclusive dependence of the IHE on the public budget for funds. In the absence of an overall national educational development policy the behaviour of the IHE has been conditioned by the annual duration of the public budget and the political priority that each government has given to higher education. A second element which has influenced the organisational behaviour of the IHE is the extreme rigidity prevailing both in the preparation and implementation of the budget. This, combined on the one hand with the almost exclusive source of funding, and on the other, with the severe legal and administrative control of expenditure, has led to the mutual mistrust between the IHE and the public authorities, previously mentioned.

A third element has been the absence of any allocation criteria which could have: *first*, allowed the IHE to have an *a priori* rough idea of the order of their annual budgets based on, for example, the total number of students and by school, the total number of teaching staff, the nature of the various schools of each IHE, the intensity of research activities, and so on; *second*, helped governments and, since last year, the Council of Higher Education, to undertake a just allocation of total resources among the IHE. As already mentioned, a first attempt to establish such criteria was undertaken early in 1987 by the Council of Higher Education but with no success because the criteria proposed by the Ministry of Education were not accepted by the university- type institutions. Therefore, the decision as to the amount of public funds to be allocated to each IHE still remains entirely with the Ministries of Education and Finance; it is mainly based on past year's realised expenditure and the civil servants appreciation of additional needs. This accentuates the very short-term nature of the financial management of the IHE and reduces the possibility of their taking initiatives outside of current budgetary arrangements, in research and other activities so as to respond to national and local economic and social needs which could be seen as irrelevant or costly by the public financial authorities since the IHE have no authority to recuperate any of the associated costs. This evidently obliges the IHE to restrict their activities to what others conceive as their main task, namely, teaching. Under such circumstances it is easy to understand why the amount of resources for research is very low. Even when earmarked research funds are available

through international sources (for example, the EEC and NATO) it is very difficult for the IHE to profit from them particularly when a Greek financial contribution or the recruitment of new staff is needed.

The foregoing discussion makes it clear that the autonomy of the IHE for undertakings which have direct or indirect financial implications is very limited in the sense that related institutional decisions are subject to external control decisions. This, certainly, discourages the IHE from innovating, doing research, diversifying the subjects taught, enriching teaching, inviting outside scholars, and in general doing anything that will contribute to ameliorating the quality of the education offered but which, on the other hand, could be considered as an unnecessary luxury by those responsible for allocating public resources.

In addition to the administrative difficulties involved in monitoring the collection of fees, another argument in favour of free higher education was, and still is, the egalitarian one of removing the barrier to entry of poor students. However, as is well established in the relevant literature, "all higher education systems in the world are 'inequitable' (because) no matter how equitable the legislator's intentions are the off-spring of the higher classes, however defined, will be more represented in the university" (14). This is particularly true in countries like Greece which apply a *numerus clausus* system for controlling entrance to higher Education (15). It is, therefore, unrealistic to argue that a free system could, of itself, help improve equity, when the entrance system is inherently inequitable. Since it is based on school attainment, it favours children from well-to-do families whose parents have also been to university. The ability of poor students to complete their studies after entering an IHE will depend, certainly, on some sort of financial support. In such a case the provision of free tuition as well as extra support for needy students become meaningful. This, however, is not a sufficient argument for offering free tuition to all students. Then the "poor" would finance the education of children from rich families. This finding is based on the taxes paid by low-income families and the small number of children from such families entering higher education, particularly universities, and higher taxes paid by better off families and the higher number of children from these families following higher education (16). The situation is improving as the country's tax system becomes more progressive and deteriorating as tax evasion increases.

Free tuition, however, has certainly had a positive effect upon the individual demand for higher education. The steady growth of demand despite the relatively low supply of places, can only be explained by the fact that a heavily subsidised system in a period of widespread unemployment among secondary school -leavers, which reduces to almost zero the foregone earnings

normally associated with post-secondary studies, raises the private rate of return and makes higher education economically very attractive (17). Of course, in Greece additional factors have to be taken into account in explaining the rapid increase of individual demand; for example, the extent to which higher education diplomas have been institutionalised, particularly for employment in the public sector which very early offers permanent tenure, and ensure other non-monetary benefits related to the social status of graduate professions.

An additional factor seems to have played an important role in encouraging social demand, namely, the government decision in 1982 to increase rapidly the number of places for new entrants in both the university-type and the non-university-type institutions, particularly the technological ones. As table 2 shows, the growth of enrolments in the former was 58 per cent from 1981 to 1987 and in the non-university technological institutions 140 per cent from 1981 to 1985 (it declined slightly during the last two years). This fast growth, as previously stated, has put tremendous pressure on public resources and, consequently, on the IHE for which public funds are the unique source of income. This is clearly shown in the the evolution of real expenditure (total or current) per student (Table 9). If account is taken of the fact that more than 12 per cent of current expenditure is devoted to student support, it becomes clear that the IHE have found themselves in extreme difficulties in trying to maintain academic standards (18). Table E provides some interesting information concerning teaching staff and the number of students by university-type institution in 1987. Teacher/student ratios differ substantially among institutions: from 12/1 at the University of Crete to 119/1 at the Industrial School of Thessaloniki. It is very difficult to conclude whether these ratios are within acceptable norms. Additional information pertains to the number of vacant posts in each institution. That number, as a per centage of the total number of posts administratively foreseen for each institution, varied from 33,6 per cent at the School of Political Sciences (Panteos) to as much as 82,6 per cent at the University of Thrace. It is not known whether these vacant posts are in existing departments or in departments about to be established and whether the filling of the vacancies will automatically imply an increase in the number of students. Nevertheless, this high per centage of vacancies, particularly in the old institutions, is indicative of the financial inability of the IHE (read the public budget) to fill them.

Table E

Number of Students and Teaching Staff
by University Type Institution in 1987

	Number of Students	Number of Teaching Staff				Vacant Posts as % of total Posts
		Total No. of Posts	Occupied Posts	Vacant Posts	Students per Teaching Staff	
University of Athens	35 884	2 020	1 301	729	28/1	36.1
Technical Univ. of Athens	7 114	676	400	276	18/1	40.8
University of Thessaloniki	35 635	2 273	1 409	864	25/1	38.0
School of Economic & Business Science (Athens)	5 215	269	71	198	73/1	73.6
School of Agriculture	1 418	163	92	71	15/1	43.6
School of Political Science (Athens)	3 539	140	93	47	38/1	33.6
Industrial School of Pireus	3 816	273	56	217	68/1	79.5
Industrial School of Thessaloniki	2 866	81	24	57	119/1	70.4
University of Patras	7 786	576	327	249	24/1	43.2
University of Ioannina	4 909	444	266	178	18/1	40.1
University of Thrace	4 186	610	106	504	39/1	82.6
School of Fine Arts (Athens)	436	38	24	14	18/1	36.8
University of Crete	2 731	508	224	284	12/1	55.9
Technical University of Crete	314	53	16	47	20/1	74.6

Source: Council of Higher Education, No. 10, 1987.

Chapter Five

EVALUATION AND FUTURE DEVELOPMENT IN THE FINANCING OF HIGHER EDUCATION

The general impression to be derived from studying the financing of higher education in Greece is that many of the problems encountered are either politically biased or due to communication problems among administrations.

To begin with, the public budget, under current economic conditions, seems to have reached a ceiling as far as the financing of education in general and higher education in particular is concerned. This ceiling nevertheless, is not fully justified since the current allocation, as expressed in the budget of the Ministry of Education, is equivalent to 8,5 per cent of the total public budget whereas in 1978 it amounted to 12 per cent. It would seem that, by means of a different reallocation of public resources, the Government could succeed in meeting the 12 per cent target for education. In that case higher education would receive an additional amount of 28 bil. drs annually (1988 prices). This sum would be sufficient to permit the IHE to fill most of their vacant posts, set up new departments, complete existing ones and undertake some additional and indispensable works to improve academic performance. Such an undertaking should be based, of course, on well-conceived and carefully studied and executed plans in order to avoid waste, and carried out in close collaboration with the public authorities.

Current governmental thinking, however, does not give grounds for being optimistic about such a reallocation of resources. The Government's current strategy is apparently focused on the gradual reduction of new admissions in order to decrease the pressure on the IHE and to encourage those institutions owning property to exploit it better. The introduction of student fees and freely operating private university- type institutions should be ruled out for the time being until this or another Government decides to introduce the necessary changes into the Constitution.

Permission for private university- type institutions to operate formally seems more probable in the near future than the introduction of fees for two main reasons. First, it will be necessary to align domestic policies with those of the EEC in view of Greece's obligations and the expected pressure from other EEC countries. The second relates to the current situation in which, as stated earlier, 45 000 Greeks are studying abroad at tremendous cost. It is reasonable to believe that parents would prefer their children to continue their studies in Greece at a

private university rather than travel abroad. The associated cost would, undoubtedly, be much smaller for the families and the country would save a good deal of foreign exchange. Moreover, private universities might also attract students from abroad and thereby generate additional gains on foreign exchange. It is difficult to explain why the formal operation of private university-type institutions was constitutionally banned by a conservative government when non-university private institutions were free to operate. The most probable, although speculative, explanation is that the public university academic establishment exercised effective pressure upon the Government with a view to avoiding the implied risk of competition from foreign universities, which could have been to their detriment, but certainly not to the detriment of students and the country in general. This attitude does not seem to prevail any longer among the majority of the academic staff. A small per centage of students, expressing political views, are opposing the free operation of private universities; nevertheless, the great majority of students, particularly those belonging to the opposition party, as well as the opposition party itself, are in favour (19).

The property of the IHE, as potentially an important source of income is limited, of course, only to a couple of big universities, in particular those of Athens and Salonica. The nature and the importance of this property is not well known. Most of it, however, is in the form of bequests for well earmarked purposes. This, certainly, limits the importance of this source for covering general operational expenditure. On the other hand, especially in view of the existing restrictive administrative arrangements for the management of university property, any attempt to "better exploit" it is materially impossible in the absence of major administrative reforms. The objective of such reforms would be to make the universities the responsible managers of their own property. Progress in this direction was made with the Law 1268/82 on the "structure and functioning of the Universities". According to Article 3 paragraph 7, the universities can create special enterprises in Public or in Private Law for the development and management of their own property. Up to date, however, only two new universities, namely Thessaly and Aegeon, have established such enterprises. There is not enough information as to why the big universities have not taken advantage of the law as yet. In view of the administrative and legal complexity of the issue, it is most probable that additional Laws and Presidential Decrees are needed to make it possible for university property to be transferred to these new enterprises. At any rate, even if this source of income could potentially become very important, it should not be thought that it could be of much help to the universities in the near future.

The present strict financial control, despite its negative effects on the planning and management of IHE will, certainly, continue for quite a long time, unless "revolutionary" administrative reforms are introduced. Nevertheless, some hopes are permitted in view of the positive role that the Council of Higher Education could eventually play, particularly by restoring a dialogue between the public authorities and the management of the IHE and reestablishing mutual trust. The recent attempt to adopt resource allocation indicators, although failing at its first trial, provides hopeful signs that some of the outstanding problems will be discussed and eventually satisfactorily resolved.

NOTES AND REFERENCES

1. The expected establishment of the University of Attica, a project which goes back to the Higher Education bill of May 1965, by bringing together four small university level institutions (Higher School of Economics and Business Science (5 215), Higher School of Agriculture (1 418), Panteios School of Political Science (3 539), and Pireus Higher School of Industrial Studies (3 816) which are located in Greater Athens, aims at a better educational and managerial co-ordination of these four institutions.

2. See for example: C. Soumelis "Individual Demand for Education: Case Study Greece" in: OECD, Individual Demand for Education, Paris, 1979.

3. In the period 1981-87 total expenditure decreased by 0,5 per cent annually and current expenditure by 0,2 per cent annually.

4. It should be borne in mind that students' aid is included in current expenditure. This, as discussed in Chapter 3, makes up for more than 12 per cent of total expenditure on higher education.

5. Council of Higher Education, Bul. N° 10 January 1987.

6. Private university level colleges do operate but are not recognised by the State.

7. For a description of the procedures, see: C.A. Saitis, "A comparative Study of some aspects of the Administrative Systems of English and Greek Universities" Hull, 1986 (unpublished Ph. D. Thesis) pp. 242-247; Ministry of Finance, "Instructions for the preparation of the 1988 Budget", Athens, 1987 (in Greek).

8. C.A. Saitis, op. cit. p. 244.

9. For an evaluation of the new decision-making process on the basis of a number of concrete decisions, see: C.A. Saitis, ibid pp. 191-233.

10. The daily cost of meals (225 Drs.) has not been revised since 1985.

11. This sum has not been included in total expenditure on higher education.

12. Council of Higher Education, op. cit. pp. 11-47.

13. Ibid. Table 5.7, p. 102.

14. G. Psacharopoulos, "Higher Education in Greece: Status and Prospects", Minerva, Sum. 1988.

15. See, for example: C. Soumelis, Individual Demand for Higher Education in Greece, op. cit.

16. G. Psacharopoulos, op. cit. citing a study by Hansen and Weisbrod (1969) of California's higher education system.

17. Ibid. p. 16.

18. If there is a real fall in academic standards this is certainly due to additional factors such as excessive politicisation, student absenteeism and too little research, (see, for example G. Psacharopoulos ibid, pp. 10-12).

19. This was explicitly stated in the political platform of this student association in the last student elections. It was also stated that students from rich families should pay fees.

STATISTICAL ANNEX

Introduction

1. In view of the differences which exist among the three main sources of educational expenditure statistics, namely: the general budget, the National Statistical Service and the National Accounts, it was decided to use the figures presented in the general budget. For the years 1974 to 1986 the statistics refer to "realised expenditure"; for the year 1987 they refer to estimates at the end of October 1987 and for the year 1988 they present the credits budgeted for this year. Statistics on GDP were taken from the OECD National Account Service.

2. Public educational expenditure refer to public expenditure on formal education responsibility of the Ministry of Education only; it excludes public expenditure on education spent by other Ministries (circa 2.0 to 2.5 per cent of total public educational expenditure). This omission was felt necessary because enrolment figures supplied by the National Statistical Service exclude enrolments to military higher education schools responsibility of the Ministry of Defence.

3. More particularly, public current educational expenditure amount to total expenditure by the Ministry of Education minus expenditure on church administration. Capital expenditure includes the funds allocated to the Ministry of Education in the National Investment Budget plus resources spent by the regional authorities (Nomarchies) on education. Total public educational expenditure include subsidies to the private sector (circa 0.2 per cent) which was not possible to be separated for technical reasons.

4. Total public expenditure refer to total funds in both the current and investment national budgets. It includes transfers to regional authorities (Nomarchies).

5. Both, current and capital public expenditure have been deflated with the help of the public consumption deflator in the absence of a public capital one taken from the OECD economic statistical service. The public consumption deflators for the year 1987 and 1988 have been calculated on the basis of the corresponding GDP deflator based on real GDP estimates made by the OECD economic statistical service.

6. Statistics on enrolments have been supplied for the years 1974 to 1985 by the National Statistical Service and for the remaining years (1986 to 1988) by the Ministry of Education. The following technical remarks are in order; the National Statistical Service calculates enrolments at the end of an

academic year whilst the Ministry of Education statistics refer to students enrolled at the beginning of an academic year. The two different ways of calculating enrolments could produce slightly different figures. This difference, however, could, in some cases, become rather important in view of the division of an academic year into two semesters.

Table 1

NUMBER OF STUDENTS AND THEIR GROWTH RATES IN HIGHER EDUCATION

	NUMBER OF STUDENTS					GROWTH RATES OF STUDENT NUMBERS				
Year(1)	Universities	Non-University Higher Educ.	Non-University Technical Higher Educ.	Non-University General Higher Educ.	Total Public Higher Education	Universities	Non-University Higher Educat.	Non-University Technical Higher Educ.	Non-Universi General Higher Educ.	Total Public Higher Ed.
1974	80041	11736	7174	4562	91777					
1975	92920	13464	8625	4839	106384	16.1	14.7	20.2	6.1	15.9
1976	95385	16851	12443	4408	112236	2.7	25.2	44.3	-8.9	5.5
1977	95017	23126	19539	3587	118143	-0.4	37.2	57.0	-18.6	5.3
1978	96650	22181	19118	3063	118831	1.7	-4.1	-2.2	-14.6	0.6
1979	95899	26312	21886	4426	122211	-0.7	18.6	14.5	44.5	2.8
1980	84510	30307	24525	5782	114817	-11.9	15.2	12.1	30.6	-6.1
1981	85718	32796	26208	6588	118514	1.4	8.2	6.9	13.9	3.2
1982	87476	34598	27345	7253	122074	2.1	5.5	4.3	10.1	3.0
1983	94867	40215	31240	8975	135082	8.4	16.2	14.2	23.7	10.7
1984	100254	45877	36179	9698	146131	5.7	14.1	15.8	8.1	8.2
1985	111446	57658	44821 (2)	12837	169104	11.2	25.7	23.9	32.4	15.7
1986	120487 (2)	75059	60233 (2)	14826 (2)	195546	8.1	30.2	34.4	15.5	15.6
1987	117470 (3)	75333	64100 (2)	11233 (2)	192803	-2.5	0.4	6.4	-24.2	-1.4
1988	118000 (4)	65395	62600 (4)	2795 (2)	183395	0.5	-13.2	-2.3	-75.1	-4.9
1974-1988						3.0	13.9	17.8	3.1	5.3
1974-1981						1.3	16.4	21.8	7.6	3.9
1981-1988						4.8	11.3	13.8	-1.4	6.7
						Elasticities with respect to corresponding Public expenditures				
1974-1988						0.536	1.299	1.471	0.816	0.855
1974-1981						0.302	1.451	1.817	0.697	0.780
1981-1988						0.696	1.130	1.140	—	0.893

1. Data refer to the end of the school year : e.g. 1974 refers to the school year 1973-1974
2. Ministry of Education data
3. Data from Council of Higher Education Bulletin No 10, Athens
4. Personal estimates based on the number of new entrants in 1987

Note : Students in military schools are not included; students in higher technical and vocational schools responsibilities of other Ministries than that of Education are included.

Source : National Statistical Service of Greece

W9925N

Table 2

NUMBER OF CANDIDATES AND SUCCESSFUL STUDENTS IN ENTRANCE EXAMS TO INSTITUTIONS OF HIGHER EDUCATION
1974 - 1988

		NUMBER OF SUCCESSFUL STUDENTS					SUCCESSFUL STUDENTS AS PERCENTAGE OF		
CANDIDATES									
Year	Number of Candidates	Total (1)	Universities	Non-University Higher Educ.	Non-University Technical Higher Educ.	Non-University General Higher Educ.	Total	Universities	Non-University Higher Educ.
1974	68063	16025	14475	1550	—	1550	23.5	21.3	2.3
1975	80417	19691	14435	5256	4049	1207	24.5	18.0	6.5
1976	83317	18925	10870	8055	7515	540	22.7	13.0	9.7
1977	85220	19162	12100	7062	5892	1170	22.5	14.2	8.3
1978	87417	21375	12715	8660	6550	2110	24.5	14.5	9.9
1979	91580	21075	12365	8710	6600	2110	23.0	13.5	9.5
1980	84911	24122	14200	9922	7442	2480	28.4	16.7	11.7
1981	77220	26754	14560	12194	9264	2930	34.6	18.9	15.8
1982	78708	33235	16375	16860	13460	3400	42.2	20.8	21.4
1983	110781	41193	18920	22273	17663	4610	37.2	17.1	20.1
1984	129374	50513	22880	27633	22170	5463	39.0	17.7	21.4
1985	149269	50693	22930	27763	22300	5463	34.0	15.4	18.6
1986	156289	45155	22195	22960	21200	1760	29.0	14.2	14.7
1987	151129	42625	23065	19560	19560	—	28.2	15.3	12.9

(1) Military schools have been excluded

Source : Ministry of Education, "The Greek Education System in Numbers : 1974-87, Athens, November 1987 (in Greek).

W9929M

Table 3

PUBLIC EXPENDITURE ON HIGHER EDUCATION BY SECTORS

1974 - 1988

(mil. drs. current prices)

	Total Higher Education			Universities			Non-Univ.Technical Higher Education			Non-Univ. General Higher	Non-Univ.Higher Education		
Year	Current	Capital	Total	Current	Capital	Total	Current	Capital(1)	Total	Total(2)	Current	Capital	Total
1974	2055.7	663	2718.7	1836	420	2256	156	243	399	63.7	219.7	243	462.7
1975	2876.5	1311	4187.5	2611	651	3262	187	660	847	78.5	265.5	660	925.5
1976	3538.4	1632	5170.4	3141	1232	4373	307	400	707	90.4	397.4	400	797.4
1977	4528.7	2100	6628.7	4012	1300	5312	409	800	1209	107.7	516.7	800	1316.7
1978	5939.4	2135	8074.4	5202	1485	6687	568	650	1218	169.4	737.4	650	1387.4
1979	7132.4	2584	9716.4	6196	1946	8142	623	638	1261	192.7	815.7	638	1453.7
1980	8124.4	1754	9878.4	6729	1349	8078	1082	405	1487	313.4	1395.4	405	1800.4
1981	9265.3	2345	11610.3	7215	1966	9181	1656	379	2035	394.3	2050.3	379	2429.3
1982	13478.3	2354	15832.3	10784	1898	12682	2179	456	2635	515.3	2694.3	456	3150.3
1983	17465.8	3892	21357.8	14407	3030	17437	2450	862	3312	608.8	3058.8	862	3920.8
1984	24506.0	6194	30700.0	20463	3640	24103	3454	2554	6008	589.0	4043.0	2554	6597.0
1985	30700.5	8150	38850.5	23614	6090	29704	6058	2360	8418	1028.5	7086.5	2360	9446.5
1986	39263.9	10180	49443.9	30350	6740	37090	7949	3306	11550	964.9	7950.0	3306	11256.0
1987	44309.9	11500	55809.9	33391	8600	41991	9809	3600	13409	1109.9	10918.9	3600	14518.9
1988	52390.6	13600	65990.6	40490	9600	50090	10981	3840	14821	919.6	11900.6	3840	15740.6

(1) Includes capital expenditure for teacher colleges.

(2) Current expenditure only.

Source : Annual Public Budget

Table 4

REAL PUBLIC EXPENDITURE ON HIGHER EDUCATION BY SECTOR

1974 - 1988

(mil. drs. in 1980 prices)

	Total Higher Education			Universities			Non-Univ. Technical Higher Education			Non-Univ. General Higher Educ.	Non-Univ.Higher Education		
Year	Current	Capital	Total	Current	Capital	Total	Current	Capital(1)	Total	Total(2)	Current	Capital	Total
1974	5359.0	1728.4	7087.4	4786.2	1094.9	5881.1	406.7	633.5	1040.2	166.1	572.8	633.5	1206.3
1975	6423.6	2927.6	9351.2	5830.7	1453.8	7284.5	415.6	1473.9	1889.5	175.3	590.9	1473.9	2064.8
1976	6815.1	3143.3	9958.4	6049.7	2372.9	8422.6	591.3	770.4	1361.7	174.1	765.4	770.4	1535.8
1977	7510.3	3482.6	10992.9	6653.3	2155.9	8809.2	678.3	1326.7	2005.0	178.6	856.9	1326.7	2183.6
1978	8470.3	3044.8	11515.1	7418.7	2117.8	9536.5	810.0	927.0	1737.0	241.6	1051.6	927.0	1978.6
1979	8535.7	3092.4	11628.1	7415.0	2328.9	9743.9	745.6	763.5	1509.1	230.6	976.2	763.5	1739.7
1980	8124.4	1754.0	9878.4	6729.0	1349.0	8078.0	1082.0	405.0	1487.0	313.4	1395.4	405.0	1800.4
1981	7520.5	1903.4	9423.9	5856.3	1595.8	7452.1	1344.2	307.6	1651.8	320.0	1664.2	307.6	1971.8
1982	8752.7	1527.7	10280.4	7003.1	1232.5	8235.6	1415.0	296.1	1711.1	334.6	1749.6	296.1	2045.7
1983	9478.4	2112.1	11590.5	7818.4	1644.3	9462.7	1329.6	467.8	1797.4	330.4	1660.0	467.8	2127.8
1984	10689.6	2701.9	13391.5	8926.1	1587.8	10513.9	1506.7	1114.1	2620.8	256.9	1763.6	1114.1	2877.7
1985	10917.7	2898.3	13816.0	8397.6	2165.7	10563.3	2154.3	839.3	2993.6	365.8	2520.1	839.3	3359.4
1986	12119.2	3142.2	15261.4	9367.9	2080.4	11448.3	2453.5	1020.4	3473.9	297.8	2751.3	1020.4	3771.7
1987	11894.0	3086.9	14980.9	8963.1	2308.5	11271.6	2633.0	966.3	3599.3	297.9	2930.9	966.3	3897.2
1988	12279.8	3187.7	15467.5	9490.4	2250.1	11740.5	2573.8	900.1	3473.9	215.5	2789.3	900.1	3689.4

(1) Includes capital expenditure for teacher Colleges.

(2) Current expenditure only.

Source : Tables 3 and 11.

W9933M

Table 5

ANNUAL GROWTH RATES OF REAL TOTAL PUBLIC EXPENDITURE ON HIGHER EDUCATION AND TOTAL EDUCATION;
TOTAL PUBLIC EXPENDITURE AND GDP
1974 - 1988

Year	Total Higher Education	Universities	Non-University Higher Education			Total Educational Expenditure	Total Public Expenditure	G D P
			Total	Technical	General (1)			
1974								
1975	31.9	23.9	71.2	81.6	5.5	3.0	13.3	6.1
1976	6.5	15.6	-25.6	-27.9	-0.7	6.7	7.0	6.3
1977	10.4	4.6	42.2	47.2	2.6	15.4	0.1	3.4
1978	4.8	8.3	-9.4	-13.4	35.3	7.7	4.8	6.7
1979	1.0	2.2	-12.1	-13.1	-4.6	-5.7	13.6	3.7
1980	-15.0	-17.1	3.5	-1.5	35.9	-4.1	-3.5	1.7
1981	-4.6	-7.7	9.5	11.1	2.1	5.9	31.8	0.1
1982	9.1	10.5	3.7	3.6	4.6	7.3	3.8	0.4
1983	12.7	14.9	4.0	5.0	-1.3	5.9	12.9	0.4
1984	15.5	11.1	35.2	45.8	-22.2	2.8	4.0	2.8
1985	3.2	0.5	16.7	14.2	42.4	8.2	-1.8	3.0
1986	10.5	8.4	12.3	16.0	-18.6	-3.2	4.3	1.3
1987	-1.8	-1.5	3.3	3.6	0.0	-0.6	-7.2	-0.4
1988	3.2	4.2	-5.3	-3.5	-27.7	4.1	3.6	1.3
1974 - 1978	6.2	5.6	10.7	12.1	3.8	3.8	6.2	2.6
1974 - 1981	5.0	4.3	11.3	12.0	10.9	4.1	9.6	4.0
1981 - 1988	7.5	6.9	10.0	12.1	-3.3	3.5	2.8	1.3

(1) Current Expenditure Only.

Source : Table 4 and 12.

W9935M

Table 6

ELASTICIES OF REAL PUBLIC EDUCATIONAL EXPENDITURE ON HIGHER EDUCATION
WITH RESPECT TO TOTAL PUBLIC EDUCATIONAL EXPENDITURE
TOTAL PUBLIC EXPENDITURE AND GDP

1974 - 1988

Year	Total Public Educational Expenditure		Total Public Expenditure on Higher Education			Public Expenditure on Universities with respect to:				Total
Public Exp.	with respect to		with respect to :							with resp.to:
	Total Public Expenditure	G D P	Total Public Educational Expenditure	Total Public Expenditure	G D P	Total Expend. on Higher Education	Total Educat. Expenditure Higher Educ.	Total Public Expenditure on Non-Univ. Higher Educ.	Total Public Expenditure on Non-Universers. Technical Higher Educat.	G D P
1974-1988	0.613	1.462	1.632	1.000	2.385	0.903	1.474	0.523	0.463	2.385
1974-1981	0.427	1.025	1.220	0.521	1.250	0.860	1.049	0.381	0.358	2.400
1981-1988	1.250	2.692	2.143	2.678	5.769	0.920	1.971	0.690	0.570	2.154

Source : Table 5.

W9955M

Table 7

TOTAL PUBLIC EDUCATIONAL EXPENDITURE AND BY LEVEL AS PERCENTAGE OF TOTAL PUBLIC EXPENDITURE

1974 - 1988

YEAR	Total	Pre-Primary and Primary	Secondary	Total Higher Education	Non-distrib.	Universities	Non-Universities
1974	11.1	3.84	2.80	2.10	2.36	1.74	.36
1975	10.1	3.91	3.09	2.45	.65	1.91	.54
1976	10.1	3.91	2.86	2.44	.89	2.06	.38
1977	11.7	4.01	2.97	2.69	2.03	2.15	.54
1978	12.0	4.31	3.46	2.69	1.54	2.22	.47
1979	10.0	3.78	3.60	2.39	.23	2.00	.39
1980	9.9	3.56	3.54	2.10	.70	1.72	.38
1981	7.9	2.66	2.57	1.52	1.15	1.20	.32
1982	9.4	3.21	3.22	1.83	1.14	1.47	.36
1983	8.9	3.07	3.31	1.84	.68	1.50	.34
1984	8.7	2.99	3.46	2.03	.22	1.60	.43
1985	9.7	3.09	3.66	2.15	.80	1.64	.51
1986	9.0	3.22	3.43	2.26	.09	1.70	.56
1987	8.3	2.89	3.06	2.09	.26	1.57	.52
1988	8.5	3.05	2.96	2.08	.41	1.58	.50
Maximum	1978	1985	1977/78			1978	1986
Minimum	1981	1981	1981			1981	1981

Source : Tables 13 and 15.

W9939N

Table 8

REAL PUBLIC EXPENDITURE ON HIGHER EDUCATION
AS PERCENTAGE OF REAL GDP

1974–1988

Year	Total Education	Total Higher Educ.	University	Non-University Higher Education
1974	2.89	.54	.45	.09
1975	2.80	.68	.53	.15
1976	2.81	.68	.57	.11
1977	3.14	.72	.58	.14
1978	3.17	.71	.59	.12
1979	2.88	.69	.58	.11
1980	2.72	.58	.47	.11
1981	2.87	.55	.44	.11
1982	3.07	.60	.48	.12
1983	3.24	.67	.55	.12
1984	3.24	.76	.59	.17
1985	3.41	.76	.58	.18
1986	3.25	.82	.62	.20
1987	3.28	.81	.61	.20
1988	3.37	.83	.63	.20

Source : ...

Table 9

REAL PUBLIC EXPENDITURE ON HIGHER EDUCATION PER STUDENT

1974 - 1988

Year	Total Higher Education		Universities		Non-University Higher Education		Non-University Technical Higher Education		Non-University General H.Educ.
	Total	Current	Total	Current	Total	Current	Total	Current	Current
1974	75400	58400	73500	59800	102800	48800	145000	56700	35300
1975	86300	60400	78400	62700	153400	43900	219100	48200	36200
1976	87200	60700	88300	63400	91100	45400	109400	47500	39500
1977	91500	63600	92700	70000	94400	37100	102600	34700	49800
1978	94900	71300	98700	76800	89200	47400	90900	42400	78900
1979	92100	69800	101600	77300	66100	37100	69000	34100	52100
1980	83300	70800	95600	79600	59400	46000	60600	44100	54200
1981	76800	63500	86900	68300	60100	50700	63000	51300	48600
1982	81500	71700	94100	80100	59100	50600	62600	51700	46100
1983	83400	70200	99700	82400	52900	41300	57500	42600	36800
1984	89900	73200	104900	89000	62700	38400	72400	41600	26500
1985	79500	64600	94800	75400	58300	43700	66800	48100	28500
1986	76500	62000	95000	77800	50200	36700	57700	40700	20100
1987	76200	61700	96000	76300	51700	38900	56200	41100	26500
1988	83200	67000	99500	80400	56400	42700	55500	41100	77100
Max.	78/94900	84/73200	84/104900	84/89000	75/153400	81/50700	75/219100	74/56700	78/78900
Min.	74/75400	74/58400	74/73500	74/59800	86/50200	86/36700	88/55500	79/34100	86/20100
Average values									
1974-81	85938	64813	89463	69736	89563	44550	107450	44875	49325
1982-82	81457	67200	97714	80200	55900	41757	61244	43843	37371
1974-88	83847	65927	93313	74620	73853	43247	85887	44393	43747

Source : Tables 1 and 4

Table 10

ANNUAL GROWTH RATES OF REAL EDUCATIONAL EXPENDITURE PER STUDENT

1974 - 1978

	Total Higher Education		Universities		Non-University Higher Education		Non-University Technical Higher Education		Non-University General Higher Ed.
Year	Total	Current	Total	Current	Total	Current	Total	Current	Current
1974									
1975	14.5	3.4	6.7	4.8	49.2	-10.0	51.1	-15.0	2.5
1976	1.0	0.5	12.6	1.1	-40.6	3.4	-50.1	-1.5	9.1
1977	4.9	4.8	5.0	10.4	3.6	-18.3	-6.2	-26.9	26.1
1978	3.7	12.1	6.5	9.7	-5.5	27.8	-11.4	22.2	58.4
1979	-3.0	-2.1	2.9	0.7	-25.9	-21.7	-24.1	-19.6	-34.0
1980	-9.6	1.4	-5.9	3.0	-10.1	24.0	-12.2	29.3	4.0
1981	-7.8	-10.3	-9.1	-14.2	1.2	10.2	4.0	16.3	-10.3
1982	6.1	12.9	8.3	17.3	-1.7	-0.2	-0.6	0.8	-5.1
1983	2.3	-2.1	6.0	2.9	-10.5	-18.4	-8.1	-17.6	-20.2
1984	7.8	4.3	5.2	8.0	18.5	-7.0	25.9	-2.3	-28.0
1985	-11.6	-11.7	-9.6	-15.3	-7.0	13.8	-7.7	15.6	7.5
1986	-3.8	-4.0	0.2	3.2	-13.9	-16.0	-13.6	-15.4	-29.5
1987	-0.4	-0.5	1.1	-1.9	3.0	6.0	-2.6	1.0	31.8
1988	9.2	8.6	3.6	5.4	9.1	9.8	-1.2	0.0	190.9
1974-1988	1.0	1.2	2.4	2.5	-2.2	0.2	-4.1	-0.9	14.5
1974-1981	0.6	1.4	2.7	2.2	-4.0	2.2	-7.0	0.7	8.0
1981-1988	1.4	1.1	2.1	2.8	-0.4	-1.7	-1.1	-2.6	21.1
1981-1987	-0.5	-0.2	1.9	2.4	-1.9	-3.6	-1.1	-3.0	-7.3

Source : Table 9

Table 11

GDP AND PUBLIC CONSUMPTION DEFLATORS

1980 BASE YEAR

YEAR	GDP	PUBLIC CONSUMPTION
1974	.43331	.3836
1975	.4865	.4478
1976	.5614	.5192
1977	.6341	.6030
1978	.7162	.8356
1979	.8497	.8356
1980	1.0000	1.0000
1981	1.1975	1.2320
1982	1.4981	1.5399
1983	1.7837	1.8427
1984	2.1457	2.2925
1985	2.5272	2.8120
1986	3.0079	3.2398
1987	3.4587	3.7254
1988	3.9610	4.2664

NOTE : The public consumption deflator was used for deflating both current and capital public expenditure and public expenditure on education.

Source : OECD Statistics

Table 12

REAL GDP TOTAL PUBLIC EXPENDITURE AND PUBLIC EXPENDITURE
ON EDUCATION AS A PERCENTAGE OF GDP

1974 - 1988

(mil. drs.1980 prices)

	Public Educational Expenditures			Total Public Expenditures				Total Education. Expenditures as % of	Total Public Expenditures as % of
Year	Current	Capital	Total	Current	Capital	Total	GDP	G D P	G D P
1974	31334.7	6256.5	37591.2	287695.5	49530.8	337226.3	1302701.4	2.89	25.89
1975	28456.9	10272.4	38729.3	322242.1	59803.5	382045.6	1381706.0	2.80	27.65
1976	30722.3	10593.2	41315.5	344356.7	64329.7	408686.4	1469362.3	2.81	27.81
1977	37411.3	10281.9	47693.2	349419.6	59701.5	409121.1	1519791.8	3.14	26.92
1978	40245.3	11123.8	51369.0	370792.9	57900.7	428693.6	1621055.5	3.17	26.45
1979	38791.3	9669.7	48461.0	405696.5	81139.3	486835.8	1681770.0	2.88	28.95
1980	40065.0	6400.0	46465.0	405000.0	65000.0	470000.0	1711000.0	2.72	27.47
1981	42397.7	6818.2	49215.9	543019.5	76298.7	619318.2	1711899.7	2.87	36.18
1982	45808.8	7013.4	52822.2	561724.8	81174.1	642898.9	1718843.8	3.07	37.40
198.	47606.8	8341.0	55947.8	631139.1	94969.3	726108.4	1725626.5	3.24	42.08
1984	47214.0	10294.4	57508.4	658451.5	96619.4	755070.9	1773314.0	3.24	42.58
1985	52597.8	9637.3	62235.1	644025.6	97795.2	741820.8	1825735.9	3.41	40.63
1986	50768.9	9445.0	60213.9	675350.3	98154.2	773504.5	1850020.2	3.25	41.81
1987	49614.5	10817.6	60432.1	632952.2	84554.7	717506.9	1841700.0	3.28	38.96
1988	53491.2	9445.9	62937.1	656649.6	86724.2	743373.8	1866200.0	3.37	39.83

Source : Tables 15 and 11

Table 13

AND TOTAL PUBLIC EDUCATIONAL EXPENDITURE DISTRIBUTED BY LEVEL OF EDUCATION

1974 - 1988

(mil. drs.)

	Pre-school & Primary Educ.			Secondary Education			Higher Education			Non Distributed			Distribution of TEE. by level			
Year	Current	Capital	Total	Current	Capital	Total	Current	Capital	Total	Current	Capital	Total	Pre-school	Secon-dary	Higher	Non Distributed
1974	4120	850	4970	2896	730	3626	2055.7	633	2718.7	2948.3	157	3105.3	34.47	25.16	18.85	21.52
1975	5543	1148	6691	3775	1517	5292	2876.5	1311	4187.5	548.5	624	1172.5	38.58	30.51.	24.15	6.76
1976	6425	1864	8289	4562	1731	6079	3538.4	1632	5170.4	1425.6	273	1698.6	38.64	28.34	24.10	8.92
1977	7760	2121	9881	5542	1788	7330	4528.7	2100	6628.7	4728.3	191	4919.3	34.36	25.49	23.05	17.10
1978	9733	3215	12948	8185	2229	10414	5939.4	2135	8074.4	4362.6	221	4583.6	35.95	28.91	22.42	12.72
1979	12490	2904	15394	12354	2295	14649	7132.4	2584	9716.4	558.3	1656	2214.3	38.02	36.18	24.00	1.80
1980	14421	2300	16721	14246	2370	16616	8124.4	1754	9878.4	3273.6	36	3309.6	35.94	35.71	21.23	7.12
1981	17058	3205	20263	17086	2525	19611	9265.3	2345	11610.3	8824.7	325	9149.7	33.42	32.34	19.15	15.09
1982	23667	4060	27727	24467	3412	27879	13478.3	2354	15832.3	8928.7	974	9902.7	34.09	34.27	19.46	12.18
1983	30377	5380	35757	33169	5311	38480	17465.8	3892	21357.8	6713.2	787	7500.2	34.68	37.32	20.72	7.28
1984	37651	7437	45088	42530	9732	52262	24506.0	6194	30700.0	3111.5	237	3348.5	34.20	39.64	23.29	2.87
1985	47118	8900	56018	56220	10032	66252	30700.5	8150	38850.5	13866.5	18	13884.5	32.01	37.86	22.20	7.93
1986	59314	11200	70514	63818	11200	75018	39263.9	10180	49443.9	2085.1	20	2105.1	35.78	38.06	25.09	1.07
1987	64100	12200	77300	69824	12000	81824	44309.9	11500	55809.9	6600.1	20	6620.1	35.05	37.10	25.30	2.55
1988	83195	13500	96695	81137	12600	93737	52390.6	13600	65990.6	11492.4	600	12092.4	36.01	34.91	24.58	4.50

Source : Annual Public Budget

Table 14

REAL PUBLIC EDUCATIONAL EXPENDITURE BY LEVEL OF EDUCATION AND AS A PERCENTAGE OF REAL GDP

1974 - 1988

(mil.drs. in 1980 prices)

	Pre-school & Primary Education			Secondary Education			Higher Education			% of GDP by level of Education				
Year	Current	Capital	Total	Current	Capital	Total	Current	Capital	Total	Pre-school & Primary	Secondary	Higher	Non-distrib.	Total Educat.
1974	10740.4	2215.8	12956.2	7549.5	1903.0	9452.6	5359.0	1728.4	7087.4	.99	.73	.54	.63	2.89
1975	12378.3	2563.6	14941.9	8430.1	3387.7	11817.8	6423.6	2927.6	9351.2	1.08	.86	.68	.18	2.80
1976	12374.8	3590.1	15964.9	8786.6	3334.0	11708.4	6815.1	3143.3	9958.4	1.09	.80	.68	.24	2.81
1977	12869.0	3517.4	16386.4	9190.7	2965.2	12155.9	7510.3	3482.6	10992.9	1.08	.80	.72	.54	3.14
1978	13880.5	4585.0	18465.5	11672.8	3178.8	14851.7	8470.3	3044.8	11515.1	1.14	.92	.71	.40	3.17
1979	14947.3	3475.3	18422.6	14784.6	2746.5	17531.1	8535.7	3092.4	11628.1	1.10	1.04	.69	.05	2.88
1980	14421.0	2300.0	16721.0	14246.0	2370.0	16616.0	8124.4	1754.0	9878.4	.98	.97	.58	.19	2.72
1981	13845.8	2601.5	16447.3	13868.5	2049.5	15918.0	7520.5	1903.4	9423.9	.96	.93	.55	.43	2.87
1982	15369.2	2636.5	18005.7	15888.7	2215.7	18104.4	8752.7	1527.7	10280.4	1.05	1.05	.60	.37	3.07
1983	16485.0	2919.6	19404.6	18000.2	2882.2	20882.4	9478.4	2112.1	11590.5	1.12	1.21	.67	.24	3.24
1984	16423.6	3244.1	19667.7	18551.8	4245.1	22796.9	10689.6	2701.9	13391.5	1.11	1.29	.76	.08	3.24
1985	16756.0	3165.0	19921.0	19992.9	3567.6	23560.5	10917.7	2898.3	13816.0	1.09	1.29	.76	.27	3.41
1986	18307.9	3457.0	21764.9	19698.1	3457.0	23155.1	12119.2	3142.2	15261.4	1.18	1.25	.82	.00	3.25
1987	17206.2	3274.8	20481.0	18742.7	3221.1	21963.8	11894.0	3086.9	14980.9	1.11	1.19	.81	.17	3.28
1988	19500.0	3164.3	22664.3	19017.7	2953.3	21971.0	12279.8	3187.7	15467.5	1.21	1.17	.83	.16	3.37

Source : Tables 13 and 11.

Table 15

GDP, TOTAL EXPENDITURE AND PUBLIC EXPENDITURE ON EDUCATION

1974 - 1988

(mil drs current prices)

	Public Educational Expenditure			Total Public Expenditure			Educational Expenditure as % of Total Public Expenditure			
	Current	Capital	Total	Current	Capital	Total	Current	Capital	Total	GDP
1974	12020	2400	14420	110360	19000	129360	10.9	12.6	11.1	564200
1975	12743	4600	17343	144300	26780	171080	8.8	17.2	10.1	672200
1976	15951	5500	21451	178790	33400	212190	8.9	16.5	10.1	824900
1977	22559	6200	28759	210700	36000	246700	10.7	17.2	11.7	963700
1978	28220	7800	36020	260000	40600	300600	7.0	19.2	12.0	1161000
1979	32414	8080	40494	339000	67800	406800	9.6	11.9	10.0	1429000
1980	40065	6460	46525	405000	65000	470000	9.9	9.9	9.9	1711000
1981	52234	8400	60634	669000	94000	763000	7.8	8.9	7.9	2050000
1982	70541	10800	81341	740000	125000	865000	9.5	8.6	9.4	2575000
1983	87725	15370	103095	986000	175000	1163000	8.9	8.6	8.9	3078000
1984	108238	23600	131838	1288000	221500	1509500	8.4	10.7	8.7	3805000
1985	147905	27100	175005	1536000	275000	1811000	9.6	9.9	9.7	4614000
1986	164481	32600	197081	1870000	318000	2188000	8.8	10.3	9.0	5564676
1987	184834	35720	220554	2358000	315000	2673000	7.8	11.3	8.3	6369900
1988	228215	40300	268515	2801530	370000	3171530	8.1	10.9	8.5	7392100

Source: Ministry of Education, Greece, for educational and total public expenditure;
OECD, for GDP figures